DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with atty. Paul Horstmann on 07-15-2010. The examiner called the applicant to indicate that he believed that the most significant aspect of the claims and the specification was the actual cabability of the depicted actual object in real life, *not any aspect that pertained to the depiction itself.* The applicant subsequently faxed proposed claims for discussion purposes along these lines.

The applicant authorized the examiner to enter the proposed claims as an attachment by examiner's amendment and add "real-world" before "capability" in the eleventh line of Claim 76.

The amendments to independent Claim 76 <u>are attached per MPEP 1302.04.</u>

Claims 71 to 75 have been cancelled by the faxed amendments.

The application has been amended as follows:

Please enter the proposed claims as faxed by the applicant and attached by the examiner and add "real-world" before "capability" in the eleventh line of Claim 76.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The examiner called the applicant to indicate that he believed that the most significant aspect of the claims and the specification was the actual cabability of the depicted actual object in real life, not any aspect that pertained to the depiction itself. This knowledge of an actual or real-world capacity of a depicted object or thing that exists in real life would require actual knowledge on the part of the user, such as a game player or student for example, of what the depicted object is actually capable of doing. This prevents OCR (object character recognition or machine vision) bots (automatic programs or scripts) from scanning Captcha text and reading it to defeat attempts by the server to prevent automated sign-ups, such as for e-mail accounts,and ensure that only humans are able to sign onto the system by providing a test that only actual people are likely to pass.

The closest prior art reference is "CAPTCHA: Using Hard Problems For Security," by von Ahn, et al. (entered as NPL, 10-20-2003). von Ahn pertains to using Captchas for security such as for registering for a computer-based account such as e-mail. The user has to read distorted letters and type in the letters to access the system. If the correct response is received from the user, the user is permitted to use the system. Distorted text such as shown by Fig. 1 of von Ahn is difficult if not impossible for most OCR (object character recognition) or machine vision programs to read. This prevents bots (automated programs or scripts) from fraudulently signing up for computer-based accounts such as e-mail account for fraudulent purposes such as

sending spam. The system of von Ahn makes it very likely that any given user of the computer-based account is a legitimate human user. Section 4.2 of von Ahn discusses PIX, which displays a distorted picture, such as a wavy distorted picture of an animal and provides the user with twenty possibilities as to what the depicted animal might be. This is a method to defeat OCR bots which attempt to read distorted text, such as from standard Captchas.

Neither of these aspects of von Ahn asks the user to respond with *an actual real-world capability* of the depicted object, *instead of merely describing the depiction of the object.* This makes the invention as claimed much more difficult for automated means to fraudulently sign up for access to the computer-based system of Claim 76.

The secondary reference Wood (5,839,902 A) asks the user about the actual capability of a depicted lion (5:6-20, asks if lion is a carnivore or if the lion lives in Africa). These aspects of Wood do ask the user about the capabilities of or things done by the depicted object (a lion in this case), but this is not suggested for the purpose of any security system. Wood is an educational system to designed to impart knowledge and test that knowledge.

"Applications of Circumscription to Formalizing Common Sense Knowledge," by John McCarthy (entered as NPL 12-24-2009) describes an early attempt to emulate common sense by computer, but does not pertain to the claimed real-world capability of a depicted object or to computer security applications. The examiner on pages 12 and 13 of the 12-24-2009 office action discusses how there is no formal or clinical definition of common sense anyway. Another paper, "Telling Humans and Computers Apart

(Automatically) or How Lazy Cryptographers do AI," by von Ahn, et al. (entered as NPL

10-20-2003) describes various Captcha-type systems such as typing in distorted words,

finding similarities between displayed shapes, PIX as described above, and sound-

based Captchas. This other von Ahn paper does not, however, suggest the claimed

real-world capability of a depicted object for computer security applications. The

examiner respects that the applicant may have different reasons for allowance.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-

5961. The examiner can normally be reached on 8:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. D. H./
Examiner, Art Unit 3714

/Peter D. Vo/
Supervisory Patent Examiner, Art Unit 3714